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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,643	02/28/2007	Bjarne Pedersen	VWS-376US	5543
83583	7590	01/19/2012		
Wood, Herron & Evans, LLP (Vestas Wind Systems)			EXAMINER	
441 Vine Street			CIGNA, JACOB JAMES	
2700 Carew Tower				
Cincinnati, OH 45202			ART UNIT	PAPER NUMBER
			3726	
			NOTIFICATION DATE	DELIVERY MODE
			01/19/2012	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/573,643

Applicant(s)

PEDERSEN, BJARNE

Examiner

JACOB CIGNA

Art Unit

3726

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-28 is/are pending in the application.
- 5a) Of the above claim(s) 1-3 and 24-26 is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 4, 27 and 28 is/are rejected.
- 8) ☒ Claim(s) 5-23 is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-893)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4 and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Teichert (US Patent 7,521,083 from PCT WO-03048569 published 12 June 2003 hereinafter referred to as TEICHERT) in view of Price (US Patent 3,989,059 hereinafter referred to as PRICE).
3. As to claim 4, TEICHERT teaches **equipment** (a hoist, as discussed in Column 12 lines 39-54) **for servicing a wind turbine after a hub of the wind turbine has been mounted** (this is an intended use of the hoist. Examiner asserts that since the hoist is taught to be mounted to the hub of the turbine, that one would have recognized that the hub would have been mounted before the servicing operation), **comprising: a crane for lowering and hoisting wind turbine appliances from and to the hub** (the hoist is a crane); **and connecting means for primarily securing the equipment, including the crane, to the hub** (while not explicitly taught by TEICHERT, one would have recognized that the hoist would have been connected to the hub, and would accordingly have connecting means), **and receiving substantially the entire load of the crane thereon** (TEICHERT contrasts the hoist with the fastening means 32. Whereas the fastening means 32 would be useful for acting as pulley tackles for wires

to be pulled up or down over them (see Column 12 lines 32+), the hoist is presented as a contained hoisting system and makes no mention of being used as a pulley, but instead is taught to pull up on the wires by the hoist itself. Accordingly, since the hoist receives substantially the entire load, the connecting means would receive substantially the entire load of the hoist.). TEICHERT does not teach **the connecting means having a lower surface adapted to conform to the generally upwardly facing curved hub surface**, or that the connecting means is secured to **an upwardly facing region of a curved surface of the hub**. However, it is well established that hubs have upwardly facing curved surfaces, as hubs are generally conical or spherical. It is well established in the art that the hubs (for example, the hub attached to nacelle 4 as shown in Figure 4 of TEICHERT) are radially symmetrical about the major axis of the nacelle. During operation the hub spins with the airfoils and while there may, at any given point in time, be a "top" and "bottom" surface of the hub, the hub's structure does not inherently have a top or bottom, or have an inherently upward or downward facing surface. Accordingly, as the claims call for the connecting means to be adapted to conform to the generally upwardly facing curved hub surface, examiner asserts that as long as the connecting means are adapted to conform to any of the curved surfaces of the hub, that the connecting means would be capable of being attached to an upwardly facing surface. An artisan would be motivated to secure the connecting means to the top of a hub in order to increase the height of the hoist. The hoist itself, however, must have connecting means capable of being secured to a curved region of the hub. Examiner presents PRICE, which teaches a hoist (crane 150) having an arm 170 and a connecting means

(plates 151, 153) that are secured to the upwardly facing curved region of a pipe (conduit 100). One having ordinary skill in the art of cranes and connecting cranes to surfaces would have recognized that it would have been an obvious matter of a properly conforming connection to attach a crane or hoist to a curved surface. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have secured the connecting means to an upwardly facing region of the curved surface of the hub because as described above, the hoist would have been at its highest point on the top of the hub, and the prior art dictates that it is a well known matter to conform connecting means to curved surfaces.

4. As to claim 28, TEICHERT teaches **equipment** (a hoist, as discussed in Column 12 lines 39-54) **for servicing a wind turbine after a hub of a wind turbine has been mounted** (this is an intended use of the hoist. Examiner asserts that since the hoist is taught to be mounted to the hub of the turbine, that one would have recognized that the hub would have been mounted before the servicing operation), **said equipment comprising: a crane for lowering and hoisting wind turbine appliances from and to the hub** (the hoist is a crane, the hoist is capable of lowering and hoisting wind turbine appliances, such as the aqua spider as taught by TEICHERT). TEICHERT does not teach that the crane includes **a mast extends upwardly from the hub**. However, hoists are not well defined in the art. Hoists can include masts, such as arms, to increase their range or leverage. Examiner provides PRICE, which teaches a crane 150 having an upwardly extending arm 170. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have provided the hoist

with a mast, because as known in the art, and specifically in PRICE, the mast provides an extended range and greater leverage than a hoist with no mast. TEICHERT does not teach **wherein the mast of the crane is adapted to attach to an upwardly facing region of a curved surface of the hub such that the load of the crane is received thereon**. However, it is well established that hubs have a upwardly facing curved surfaces, as hubs are generally conical or spherical. It is well established in the art that the hubs (for example, the hub attached to nacelle 4 as shown in Figure 4 of TEICHERT) are radially symmetrical about the major axis of the nacelle. During operation the hub spins with the airfoils and while there may, at any given point in time, be a "top" and "bottom" surface of the hub, the hub's structure does not inherently have a top or bottom, or have an inherently upward or downward facing surface. Accordingly, as the claims call for the connecting means to be adapted to conform to the generally upwardly facing curved hub surface, examiner asserts that as long as the connecting means are adapted to conform to any of the curved surfaces of the hub, that the connecting means would be capable of being attached to an upwardly facing surface. An artisan would be motivated to secure the connecting means to the top of a hub in order to increase the height of the hoist. The hoist itself, however, must have connecting means capable of being secured to a curved region of the hub. PRICE teaches a hoist (crane 150) having an arm 170 and a connecting means (plates 151, 153) that are secured to the upwardly facing curved region of a pipe (conduit 100). One having ordinary skill in the art of cranes and connecting cranes to surfaces would have recognized that it would have been an obvious matter of a properly conforming

connection to attach a crane or hoist to a curved surface. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to adapted the mast of the crane to attach to an upwardly facing region of a curved surface of the hub such that the load of the crane is received thereon as described above, the hoist would have been at it's highest point on the top of the hub, and the prior art dictates that it is a well known matter to conform connecting means to curved surfaces.

5. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over TEICHERT.

6. As to claim 27, TEICHERT teaches **equipment** (a hoist, as discussed in Column 12 lines 39-54) **for servicing a wind turbine after a hub of the wind turbine has been mounted** (this is an intended use of the hoist. Examiner asserts that since the hoist is taught to be mounted to the hub of the turbine, that one would have recognized that the hub would have been mounted before the servicing operation), **comprising a crane for lowering and hoisting wind turbine appliances from and to the hub** (the hoist is a crane, the hoist is capable of lowering and hoisting wind turbine appliances, such as the aqua spider as taught by TEICHERT); **and connecting means for securing the equipment, including the crane, to a surface of the hub** (while not explicitly taught by TEICHERT, one would have recognized that the hoist would have been connected to the hub, and would accordingly have connecting means) **such that the connecting means receives substantially the entire load of the crane thereon** (TEICHERT contrasts the hoist with the fastening means 32. Whereas the fastening means 32 would be useful for acting as pulley tackles for wires to be pulled up or down

over them (see Column 12 lines 32+), the hoist is presented as a contained hoisting system and makes no mention of being used as a pulley, but instead is taught to pull up on the wires by the hoist itself. Accordingly, since the hoist receives substantially the entire load, the connecting means would receive substantially the entire load of the hoist.).

Allowable Subject Matter

7. Claims 5-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is an examiner's statement of reasons for allowance: Examiner's best art, TEICHERT, PRICE, and the prior art cited in any of the Notice of References Cited do not teach or obviate the claim limitations of claim 5. Specifically, the prior art does not teach or obviate securing the equipment to already available holes. The term "already available holes" in view of the specification recites too much structure required of both the hub and the connecting means to consider the limitations obvious over teachings that make no mention of designing connecting means to interface with already available holes.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

9.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACOB CIGNA whose telephone number is (571)270-5262. The examiner can normally be reached on Monday - Friday 9:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DAVID P. BRYANT/
Supervisory Patent Examiner, Art Unit 3726

/JACOB J CIGNA/
Examiner, Art Unit 3726
January 13, 2012